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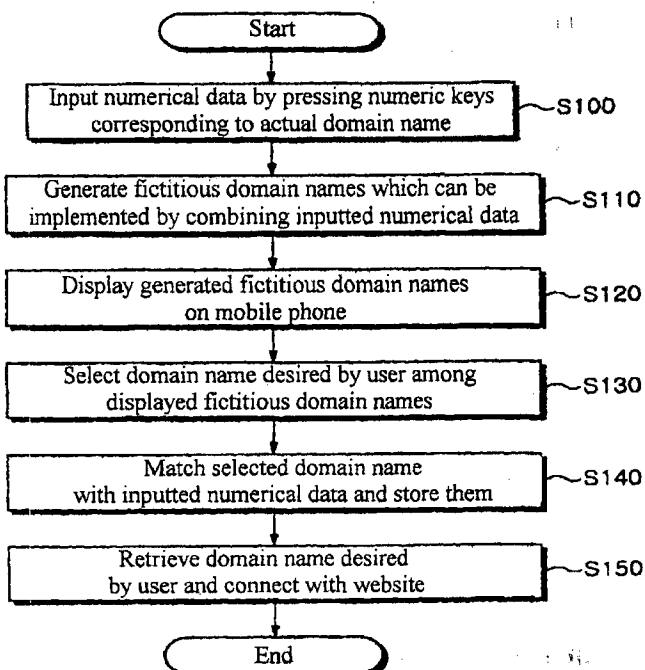
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- (71) Applicant (*for all designated States except US*): CYPUS [KR/KR]; 302 Yulam Building, 127 Nonhyeon-dong, Gangnam-gu, Seoul 153-010 (KR).
- (72) Inventor; and
- (75) Inventor/Applicant (*for US only*): KIM, Myoung-Soo [KR/KR]; 1125, 21 Airview, 829-5 Banghwa-dong, Gangseo-gu, Seoul 157-220 (KR).
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(54) Title: COMMUNICATION TERMINAL CAPABLE FOR SEARCHING INTERNET DOMAIN NAME, SYSTEM AND METHOD FOR SEARCHING INTERNET DOMAIN NAME USING THE SAME



(57) Abstract: The present invention relates to communication terminal capable of searching internet domain names and an internet search system and method employing the communication terminal. After a user connects with a search server by using the communication terminal, the user inputs numbers corresponding to a domain name of a desired website. The inputted numerical data are transmitted to the search server which in turn, generates fictitious domain names that can be implemented by combining the received numerical data. The search server compares the generated fictitious domain names with actual domain names in a domain name database, and retrieves actual domain names conforming to the fictitious domain names. The retrieved actual domain names are transmitted and displayed, and a desired domain name among the displayed actual domain names is selected.



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**COMMUNICATION TERMINAL CAPABLE FOR SEARCHING INTERNET  
DOMAIN NAME, SYSTEM AND METHOD FOR SEARCHING INTERNET  
DOMAIN NAME USING THE SAME**

5

Technical Field

The present invention relates to a communication terminal capable of searching internet domain names, and a domain name search system and method employing the communication terminal. More particularly, the present invention relates to a domain name  
10 search system and method wherein a user can input numbers corresponding to letters, which the user intends to input, by using the numeric keys on a keypad of a communication terminal and then arbitrarily select one of fictitious domain names, key words or categories provided in response to the inputted numbers.

15 Background Art

Recently, there have been developments in communication terminals capable of connecting with the internet, such as mobile phones, remote controllers for web televisions, web phones, PDAs or notebook computers with radio communications capabilities, and GPS phones. Each of the communication terminals is generally provided with a keypad, as an  
20 input means, including keys to which numbers and letters are assigned together.

Referring to FIG. 1, the keypad of a mobile phone comprises numeric keys 30 including numeric keys of "0" to "9", and special function keys 50 such as "\*" and "#" keys. The alphabet letters from "A" to "Z" and special characters are assigned to the respective keys 30, 50.

25 In the case of the keypad shown in FIG. 1, the letters "Q" and "Z" are assigned to the number "1" key; the letters "A," "B" and "C" to the number "2" key; the letters "D," "E" and "F" to the number "3" key; the letters "G," "H" and "T" to the number "4" key; the letters "J," "K" and "L" to the number "5" key; the letters "M," "N" and "O" to the number "6" key; the letters "P," "R" and "S" to the number "7" key; the letters "T," "U" and "V" to the number  
30 "8" key; and the letters "W," "X" and "Y" to the number "9" key.

Therefore, in order to input a letter by using the keypad, the letter is inputted by

pressing a numeric key, to which the letter to be inputted has been assigned, several times in accordance with the labeled order of the letters in the relevant numeric key. For example, when inputting the word "YES," the number "9" key is consecutively pressed three times at short intervals and the cursor has to be moved; the number "3" key is consecutively pressed twice at short intervals and the cursor has to be moved; and then, the number "7" key is consecutively pressed three times at short intervals.

A lot of time is therefore spent when inputting any words, and there are also many cases where the words are erroneously inputted. For instance, in a case of connecting with the internet site of "YAHOO.COM," the letter "Y" is outputted by consecutively pressing the number "9" key labeled with the letters "W," "X," and "Y" three times; the letter "A" is then outputted by consecutively pressing the number "2" key labeled with the letters "A," "B," and "C" once after the elapse of a certain period of time; the letter "H" is then outputted by consecutively pressing the number "4" key labeled with the letters "G," "H," and "I" twice after the elapse of a certain period of time; and the letter "O" is finally outputted by consecutively pressing the number "6" key labeled with the letters "M," "N," and "O" three times after the elapse of a certain period of time.

Consequently, there are problems in that much time is spent and scrupulous manipulation is required. Moreover, the problems become more serious when inputting top-level domains such as "COM," "NET," and "CO.KR."

In addition, in a case where a user does not know a domain name of an internet site with which the user wants to connect, the user first connects with a known search portal site, inputs relevant key words, selects one of searched sites, and then connects with the selected internet site. Thus, there is still the problem in that too much time is spent.

## Disclosure of Invention

An object of the present invention is to provide a communication terminal and a search system employing the communication terminal, wherein words can be easily and quickly inputted upon connection with the internet by using a hand-held device.

Another object of the present invention is to provide a search system and method, wherein even in a case where a user does not know a domain name, the user can search websites by directly inputting key words.

### Brief Description of Drawings

FIG. 1 is an enlarged elevational view illustrating a keypad of a typical mobile phone.

FIG. 2 is a block diagram showing the constitution of a communication terminal  
5 which can be applied to the present invention.

FIG. 3 is a flowchart showing a method for searching internet domain names according to an embodiment of the present invention.

FIG. 4 is a block diagram showing the constitution of a search system according to another embodiment of the present invention.

10 FIG. 5 is a flowchart showing a method for searching internet domain names applied to the search system of FIG. 4.

FIG. 6 is a flowchart showing a method for searching internet domain names according to a further embodiment of the present invention.

15 FIG. 7 is a block diagram showing the constitution of a search system according to a modified embodiment of the present invention.

FIG. 8 is a flowchart showing a method for searching internet domain names applied to the search system of FIG. 7.

### Best Mode for Carrying Out the Invention

20 Hereinafter, preferred embodiments of the present invention will be explained in detail with reference to the accompanying drawings.

In connection with description of the present invention, it should be noted that the terms used herein are defined in consideration of the functions in the present invention, and that since the terms can be varied in accordance with the intention or practice of those skilled  
25 in the art, the definitions of the terms must be construed based on the contents of the present invention throughout the specification.

The present invention can be applied to various types of communication terminals. The present invention can be applied to any device provided with a keypad comprising of a plurality of keys to which numbers and letters are assigned. For example, it can be applied  
30 to a mobile phone, a remote controller for a web television, a web phone, a PDA, a notebook computer with radio communications capabilities, and the like.

Hereinafter, for convenience of explanation, a mobile phone will be explained by way of example.

Referring to FIG. 2, a mobile phone of the communication terminal for use in the present invention includes a keypad 20 for inputting numerical data, a domain name  
5 generating portion 60 for generating fictitious domain names which can be implemented by combining the numerical data inputted by the keypad 20, a display portion 10 for outputting the fictitious domain names generated by the domain name generating portion 60, a database  
portion 80 for matching the numerical data with a selected one of the generated fictitious domain names and storing the matched numerical data and selected domain name, and a  
10 control portion 70 for controlling the respective portions and managing data transmission.

A method for searching internet domain names by using the mobile phone constructed as such will be described below.

Referring to FIG. 3, the search method will be explained, for example, in the case of connection with the site "YAHOO.COM."

15 First, in the keypad 20 provided in the mobile phone, a user presses sequentially the number "9" key labeled with the letter "Y," the number "2" key labeled with the letter "A," the number "4" key labeled with the letter "H," the number "6" key labeled with the letter "O," and the number "6" key labeled with the letter "O" (S100).

Subsequently, the domain name generating portion 60 generates the fictitious domain  
20 names by combining the letters "W," "X" and "Y" assigned to the number "9" key, the letters "A," "B" and "C" assigned to the number "2" key, the letters "G," "H" and "I" assigned to the number "4" key, the letters "M," "N" and "O" assigned to the number "6" key, and the letters "M," "N" and "O" assigned to the number "6" (S110). At this time, the generated fictitious domain names includes 35 = 405 domain names such as "WAGMM," "WAGMN,"  
25 "WAGMO," . . . , "YCIOO."

The domain names generated by the domain name generating portion 60 are displayed on the display portion 10 such as an LCD under control of the control portion 70 (S120). At this time, a priority-based database in which the domain names are arranged according to their priorities of connection frequencies in the internet may be installed, if  
30 necessary. Then, by referring to the priority-based database, the generated fictitious domain names are displayed in the order of their priorities so as to facilitate a user's selection.

When the user finds out and selects a desired domain name, i.e. "YAHOO," from the displayed fictitious domain names (S130), the control portion 70 matches the selected domain name "YAHOO" with the sequentially inputted numerical data "92466" and stores them in the database portion 80 (S140).

5           When the user wants to connect with a specific internet site at a later date, the user inputs numerical data corresponding to a domain name of the specific internet site so as to retrieve and display the corresponding domain name from the database portion 80. Then, the user can select the corresponding domain name and connect with the desired specific internet site (S150).

10           With the constitution and method according to this embodiment, since the user can quickly input a domain name of an internet site, which the user wants to connect with, by sequentially inputting numbers corresponding to the domain name, there is an advantage in that a waste of time and input errors resulting from direct input of the letters can be prevented.

          Another advantage occurs when the user has already stored domain names of internet  
15 sites with which the user frequently connects, allowing the user to quickly retrieve the domain names, if necessary. Moreover, there is a further advantage in that when the user knows a domain name of a new internet site while surfing internet sites, the user can store it in a simple manner.

          Referring to FIG. 4, it shows an internet domain name search system according to  
20 another embodiment of the present invention.

          A client 100 such as a mobile phone, a remote controller for a web television, a web phone, a PDA, and a notebook computer with radio communications capabilities is connected with a web server 400 and a search server 500 via an internet network 300 through a repeater 200 corresponding to characteristics of the respective devices.

25           When a user presses a telephone number in the mobile phone 100 to make a phone call in a telephone mode of the mobile phone, the repeater 200 connects the mobile phone with a base station, not shown, so as to allow the user to communicate with the other person. When the telephone mode is switched to the internet connection mode, the repeater is connected with the internet network 300 to connect the mobile phone 100 with the internet  
30 network 300.

          The data server 400 has a domain name database 450, and stores and regularly

updates actual domain names existing on the internet in the domain name database. The data server 400 also provides domain name data as requested by the search server 500.

Further, the search server 500 has a domain name search engine 550 and receives numerical data transmitted through the internet network 300 from the mobile phone 100.

5 The search server 500 generates fictitious domain names which can be implemented by means of respective letters assigned to the numbers constituting the numerical data, subsequently searches the database 450 of the data server 400, and then transmits actual domain names conforming to the fictitious domain names through the internet network 300 to the user's mobile phone 100.

10 Hereinafter, a method for searching internet domain names according to another embodiment of the present invention will be described with reference to FIG. 5.

Firstly, a user switches the mobile phone 100 to the internet mode so that the mobile phone can be connected with the internet network 300 through the repeater 200 (S200).

After the user connects with the search server 500 of an operating site through the internet network 300, the user inputs sequentially numerical data corresponding to a domain name of an internet site with which the user wants to connect (S210). For example, in order to connect with the site "YAHOO.COM," the user sequentially presses the number "9" key labeled with the letter "Y," the number "2" key labeled with the letter "A," the number "4" key labeled with the letter "H," the number "6" key labeled with the letter "O," and the number "6" key labeled with the letter "O." At this time, the numerical data inputted by the user are displayed as "92466" on the LCD display provided in the mobile phone.

Subsequently, when the user presses a search key provided in the mobile phone, the displayed numerical data "92466" is transmitted to the search server 500 through the repeater 200 connected with the internet network.

25 The search server 500 receives the numerical data "92466" and then generates fictitious domain names which can be implemented by means of the letters assigned to the respective numbers (S220).

That is, by combining the letters "W," "X," and "Y" assigned to the number "9" key, the letters "A," "B," and "C" assigned to the number "2" key, the letters "G," "H," and "T" assigned to the number "4" key, the letters "M," "N," and "O" assigned to the number "6" key, and the letters "M," "N," and "O" assigned to the number "6" key, the fictitious domain



names are generated. In this case, the generated fictitious domain names includes 35 = 405 domain names such as "WAGMM," "WAGMN," "WAGMO," . . . , "YCIOO."

Subsequently, the domain name search engine 550 of the search server 500 is connected with the domain name database 450 of the data server 400, in which the previously registered and managed actual domain names have been stored, compares the generated  
5 fictitious domain names with the actual domain names, and retrieves actual domain names conforming to the fictitious domain names (S230).

The search server 500 transmits the retrieved actual domain names through the internet network 300 to the user's mobile phone (S240).

10 The user's mobile phone receives the actual domain names transmitted from the search server 500 and allows them to be displayed on the LCD display therein (S250).

The user selects the desired domain name from the plurality of actual domain names displayed on the LCD display of the mobile phone (S260), so that the user connects with the desired site through the internet network 300 (S270).

15 According to this embodiment of the present invention, since huge amounts of actual domain name data are stored in the server, various domain names can be searched and loaded, allowing the memory of the mobile phone to be reduced.

Furthermore, since the actual domain names are displayed rather than the combined fictitious domain names, there is an advantage in that the user can easily select a desired  
20 domain name.

Hereinafter, a method for searching internet domain names according to a further embodiment of the present invention will be described in detail with reference to FIG. 6.

First, a user switches the mobile phone 100 to the internet mode so that the mobile phone can be connected with the internet network 300 through the repeater 200 (S300).

25 After the user connects with the search server 500 of an operating site through the internet network 300, he/she sequentially inputs numerical data corresponding to a domain name of an internet site with which he/she wants to connect (S310). For example, in order to connect with the site "YAHOO.COM," the user presses sequentially the number "9" key labeled with the letter "Y," the number "2" key labeled with the letter "A," the number "4" key labeled with the letter "H," the number "6" key labeled with the letter "O," and the  
30 number "6" key labeled with the letter "O." At this time, the numerical data inputted by the

user are displayed as "92466" on the LCD display provided in the mobile phone.

Subsequently, when the user presses a search key provided in the mobile phone, the displayed numerical data "92466" is transmitted to the search server 500 through the repeater 200 connected with the internet network.

5 The search server 500 receives the numerical data "92466," compares the received numerical data with each of numerical data stored in the domain name database 450 of the web server 400, and retrieves stored actual domain names corresponding to the stored numerical data conforming to the received numerical data (S320).

10 At this time, as described above, a plurality of actual domain names including the domain name "YAHOO," which correspond to the numerical data "92466," may be retrieved.

Table 1 below shows an example of a structure of the domain name database 450 applicable to the present invention. As can be seen from Table 1, a plurality of actual domain names may be assigned to one piece of numerical data. That is, the actual domain names "ADG," "BFI," "CDH," etc. can be assigned to the numerical data "234."

15

Table 1

Numerical data	Domain Names
.	.
.	.
.	.
234	ADG, BFI, CDH
.	.
.	.
.	.
.	.

20 Moreover, in constructing the domain name database 450, the actual domain names can be arranged according to their priorities of connection frequency in the internet, if necessary or desired. The actual domain names are transmitted to the user in accordance with the arranged order and then displayed on the LCD display, so that the user can more

quickly and easily select domain names of internet sites with which the user frequently connects.

Subsequently, the search server 500 transmits the selected actual domain names to the user's mobile phone through the internet network 300 (S330).

5 When the actual domain names transmitted from the search server 500 are displayed on the LCD display of the mobile phone, the user selects a desired one of the plurality of actual domain names (S340) and connects with a desired site through the internet network 300 (S350).

10 According to this embodiment of the present invention, the domain name database in which the actual domain names are stored with the actual domain names matched with relevant combinations of numbers inputted through the keypad has been constructed beforehand in the web server. Further, actual domain names conforming to numerical data received from the communication terminal of the user are searched. Thus, load on the web server itself can be reduced.

15 Referring to FIGS. 7 and 8, there is shown a modified embodiment of the search method according to the present invention. Contrary to the above embodiments, the modified embodiment allows connection with a desired site when a key word or category is inputted as numerical data by using the communication terminal.

20 As shown in FIG. 7, contrary to the above embodiments, the search server 500 includes a category database 530 in which internet websites are classified and stored according to their types and characteristics; a key word database 540 in which English words to be used as key words are stored; and a website search engine 520.

A method for searching internet domain names by using a key word and a category will be described with reference to FIG. 8.

25 First, a user switches the mobile phone 100 to the internet mode so that the mobile phone can be connected with the search server 500 through the internet network 300 via the repeater 200 (S400).

30 The search server 500 transmits a search method selection menu for selecting a search method to the user's mobile phone 100 and allows it to be displayed on the user's mobile phone 100.

Here, the user can select a desired search method from the displayed search method

selection menu. There are methods for searching relevant websites by inputting a key word and by inputting a category name corresponding to a specific category.

First, the method by which the user can search a website having desired information by means of input of a key word will be explained.

5           When the user selects a key word input method of the search method selection menu displayed on the mobile phone 100 (S410), a key word input section appears in the LCD display and the user inputs a key word corresponding to the desired information therein by using the keypad (S420).

For example, in order to search information related to the key word "YAHOO," the  
10       user presses sequentially the number "9" key labeled with the letter "Y," the number "2" key labeled with the letter "A," the number "4" key labeled with the letter "H," the number "6" key labeled with the letter "O," and the number "6" key labeled with the letter "O." Accordingly, the numerical data "92466" are displayed on the key word input section in the LCD display.

15           The inputted numerical data upon completion of the key word input are transmitted through the internet network 300 to the search server 500, and then, the search server 400 generates fictitious key words which can be implemented by combining the letters assigned to the respective numbers of the transmitted numerical data (S430).

That is, by combining the letters "W," "X," and "Y" assigned to the number "9" key,  
20       the letters "A," "B," and "C" assigned to the number "2" key, the letters "G," "H," and "I" assigned to the number "4" key, the letters "M," "N," and "O" assigned to the number "6" key, and the letters "M," "N," and "O" assigned to the number "6" key, the fictitious key words are generated. In this case, the generated fictitious domain names include, for example, "WAGMM," "WAGMN," "WAGMO," . . . , "YCIOO."

25           Then, the search server 500 compares the generated fictitious key words with key words stored in the key word database 540, retrieves only key words conforming to the generated fictitious key words from the key word database 540, and transmits them to the user's mobile phone 100.

30           The user selects a desired key word among the displayed key words to be transmitted to the search server 550 (S440).

Subsequently, the search server 500 receives the key word selected by the user, and

searches websites related to the key word through the website search engine 520 (S450).

The search server 500 transmits domain names of, or website information on the searched websites through the internet network 300 to the user's mobile phone 100. The user selects a desired website from the plurality of websites displayed on the LCD display of the mobile phone 100 and connects with the desired website (S520).

Alternatively, when the user selects a category input method of the search method selection menu (S460), a category input section appears in the LCD display of the mobile phone 100 and the user inputs a category name including desired information therein by using the keypad (S470).

For example, in order to input the category name of "SHOPPING," the user presses sequentially the number "7" key labeled with the letter "S," the number "4" key labeled with the letter "H," the number "6" key labeled with the letter "O," the number "7" key labeled with the letter "P," the number "4" key labeled with the letter "I," the number "6" key labeled with the letter "N," and the number "4" key labeled with the letter "G." Accordingly, the numerical data "74677464" are displayed on the category input section in the LCD display.

The inputted numerical data upon completion of the category name input are transmitted through the internet network 300 to the search server 500, and then, the search server 500 generates fictitious category names which can be implemented by combining the letters assigned to the respective numbers of the transmitted numerical data (S480).

That is, by combining the letters "P," "R," and "S" assigned to the number "7" key, the letters "G," "H," and "I" assigned to the number "4" key, the letters "P," "R," and "S" assigned to the number "7" key, the letters "P," "R," and "S" assigned to the number "7" key, the letters "G," "H," and "I" assigned to the number "4" key, the letters "M," "N," and "O" assigned to the number "6" key, the letters "G," "H," and "I" assigned to the number "4" key, and the letters "G," "H," and "I" assigned to the number "4" key, the fictitious category names are generated. For example, "PGMPPGMG," "PGMPPGMH," ..., "SHOPPING," ..., "SIOSSIOI" are generated, and the number of fictitious category names include  $38 = 6,561$ .

Then, the search server 500 retrieves category names among the generated fictitious category names, which conform to actual category names stored in the category database 530 of the search server 500, and transmits domain names of websites falling within the retrieved

and conforming category names to the user's mobile phone 100 (S490).

When the transmitted domain names of the websites are displayed on the LCD display of the mobile phone 100, the user selects a desired domain name of a website among the displayed domain names (S500) and thus connects with the selected website (S510).

5 According to the modified embodiment, by inputting the key words or category names as the numerical data, there is an advantage in that the user can easily search a website with which the user intends to connect. Particularly, in a case where the user does not know the domain name of a desired website, since the website can be found by inputting relevant keywords or category names as numerical data, there is another advantage in that the search is  
10 performed quickly.

In addition to generation of the combinations of the letters by inputting numerical data using the keypad in order to search domain names, an English word database may be constructed in the terminal or server to have the function of an English dictionary. That is, when a desired English word is inputted by the numeric keys of the keypad, English words  
15 which can be combined by the letters assigned to the numeric keys are generated. The generated English words are compared with English words stored in the English word database. Then, only the existing English words among the generated English words are displayed on the terminal. Therefore, the user can select a desired English word among the displayed English words.

20

#### Industrial Applicability

With the communication terminal capable of searching internet domain names and the internet search system and method employing the communication terminal according to the present invention, numerical data are inputted through the keypad of the communication  
25 terminal and the letters assigned to the numerical data are combined so as to generate fictitious domain names, or key words or category names. The user selects a proper fictitious domain name, key word or category name among the generated fictitious domain names, key words or category names. Thus, a waste of time and input errors resulting from direct input of the letters can be prevented.

30 Furthermore, when the user has already stored domain names of internet sites with which the user frequently connects in the user's own communication terminal, the user can

quickly retrieve the domain names, if necessary. Moreover, there is a further advantage in that a domain name of a new internet site can be stored in a simple manner.

## CLAIMS

1. A communication terminal capable for searching internet domain name, comprising:  
a keypad including keys to which one number and a plurality of letters are assigned;  
5 a domain name generating portion for generating fictitious domain names which can be implemented by combining said letters corresponding to respective numbers of numerical data sequentially inputted through said keypad;  
a display portion for outputting said fictitious domain names generated by said domain name generating portion;  
10 a database portion for matching said numerical data with a selected one of said generated fictitious domain names and storing said matched numerical data and selected domain name; and  
a control portion for controlling said respective portions and managing data transmission.
- 15
2. The communication terminal as claimed in claim 1, further comprising a priority-based database in which said domain names are arranged according to their priorities of connection frequency of websites in the internet and search frequency, and wherein said generated fictitious domain names are displayed in the order of their priorities by referring to  
20 said priority-based database.
3. A method for searching internet domain name by using a communication terminal capable of connecting with the internet, comprising the steps of:  
switching said communication terminal to an internet mode and connecting it with a  
25 search server through the internet;  
sequentially inputting numbers corresponding to respective letters constructing a domain name of a desired website;  
transmitting numerical data constructed by means of the sequential input to said search server;  
30 generating fictitious domain names which can be implemented by sequentially combining said letters assigned to said respective numbers constructing said numerical data



received into said search server;

comparing, by a domain name search engine of said search server, said generated fictitious domain names with previously registered and managed actual domain names, which have been stored in a domain name database, and retrieving actual domain names conforming  
5 to said generated fictitious domain names;

transmitting said retrieved actual domain names from said search server to said communication terminal;

displaying said transmitted actual domain names on said communication terminal;  
and

10 selecting a desired domain name among said displayed actual domain names.

4. A method for searching internet domain name by using a communication terminal capable of connecting with the internet, comprising the steps of:

switching said communication terminal to an internet mode and connecting it with a  
15 search server through the internet;

sequentially inputting numbers corresponding to respective letters constructing a domain name of a desired website;

transmitting first numerical data constructed by means of the sequential input to said search server;

20 comparing said first numerical data received into said search server with each of second numerical data stored in a domain name database, and retrieving actual domain names corresponding to said second numerical data conforming to said first numerical data;

transmitting said retrieved actual domain names from said search server to said communication terminal;

25 displaying said transmitted actual domain names on said communication terminal;  
and

selecting a desired domain name among said displayed actual domain names.

5. The method as claimed in claim 4, wherein said actual domain names stored  
30 corresponding to said second numerical data are arranged in said domain name database according to their priorities of connection frequency in the internet, and said actual domain

names are displayed on said communication terminal in the order of their priorities of connection frequency.

6. The method as claimed in claim 4 or 5, wherein said communication terminal is one  
5 selected from the group consisting of a mobile phone, a remote controller for a web television, a web phone, a PDA, a notebook computer with radio communications capabilities, and a GPS phone.

7. A method for searching internet domain name by using a communication terminal  
10 capable of connecting with the internet, comprising the steps of:

switching said communication terminal to an internet mode and connecting it with a search server through the internet;

receiving a search method selection menu for selecting a search method from said search server and displaying said search method selection menu;

15 if a method for searching relevant websites by inputting a key word is selected, sequentially inputting numbers corresponding to letters constructing a desired key word in said communication terminal;

transmitting numerical data constructed by means of the sequential input to said search server;

20 generating fictitious key words which can be implemented by sequentially combining said letters assigned to said respective numbers constructing said numerical data received into said search server;

comparing, by a search engine of said search server, said generated fictitious key words with key words stored in a key word database, retrieving key words conforming to said  
25 fictitious key words, and transmitting them to said communication terminal;

selecting a desired key word among said transmitted and displayed key words, and transmitting said selected key word to said search server;

searching relevant websites by referring to said selected key word transmitted to said search server;

30 transmitting domain names of or website information on said searched websites from said search server to said communication terminal; and

selecting a desired website from said transmitted domain names of or said website information on said websites.

8. The method as claimed in claim 7, further comprising the steps of:

5 if a method for searching relevant websites by inputting a category name is selected, sequentially inputting numbers corresponding to letters constructing a desired category name in said communication terminal;

transmitting numerical data constructed by means of the sequential input to said search server;

10 generating fictitious category names which can be implemented by sequentially combining said letters assigned to said respective numbers constructing said numerical data received into said search server;

retrieving category names among said generated fictitious category names, which conform to actual category names stored in a category database of said search server;

15 transmitting domain names of websites falling within said retrieved and conforming category names to said communication terminal; and

selecting a domain name of a desired website among said transmitted and displayed domain names of said websites.

20 9. The method as claimed in claim 7 or 8, wherein said communication terminal is one selected from the group consisting of a mobile phone, a remote controller for a web television, a web phone, a PDA, a notebook computer with radio communications capabilities, and a GPS phone.

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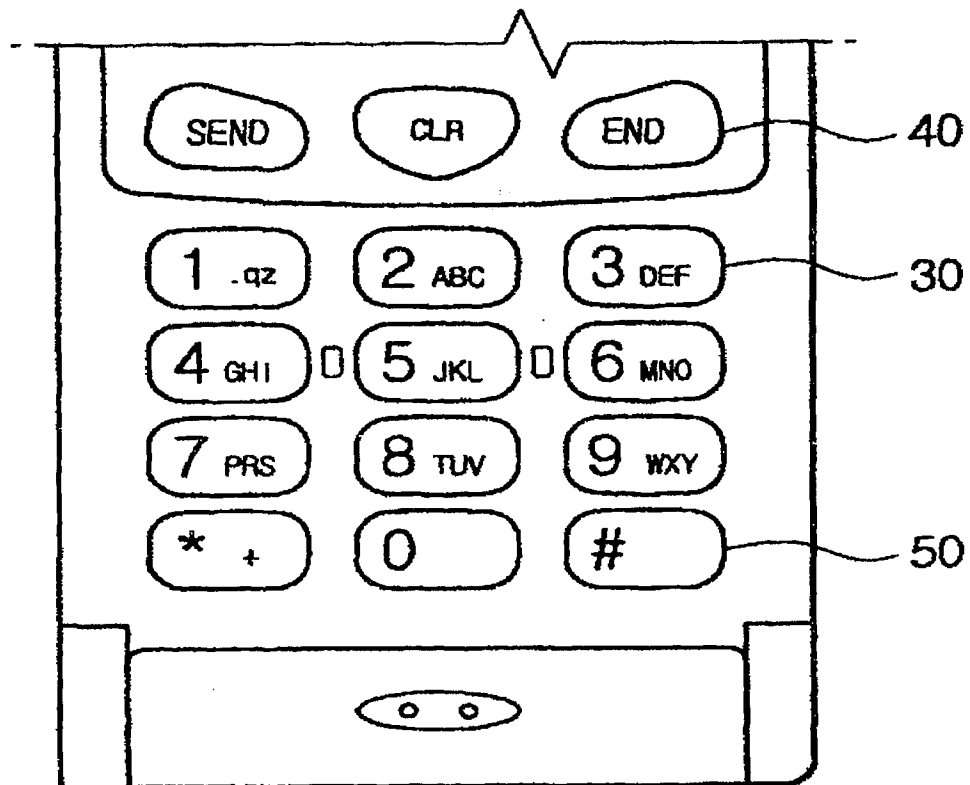
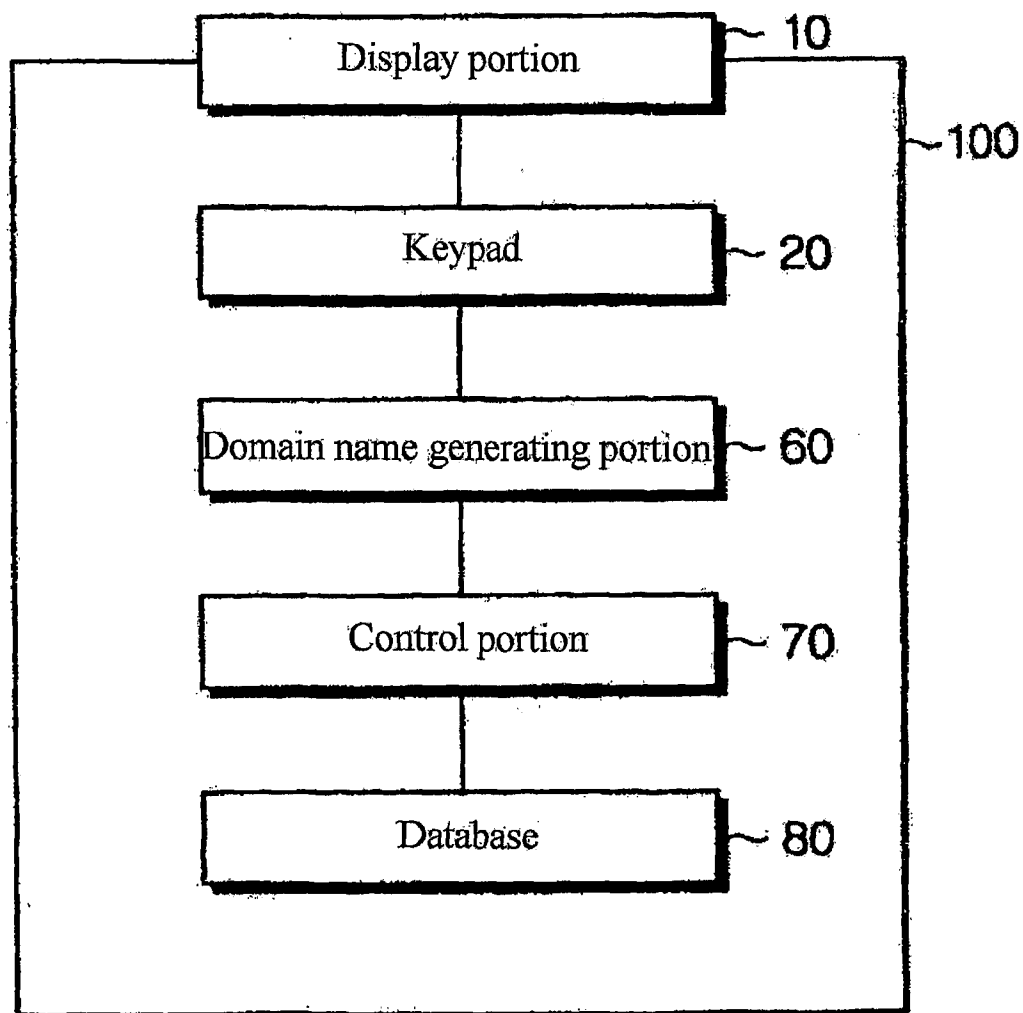


Fig. 1

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**Fig. 2**

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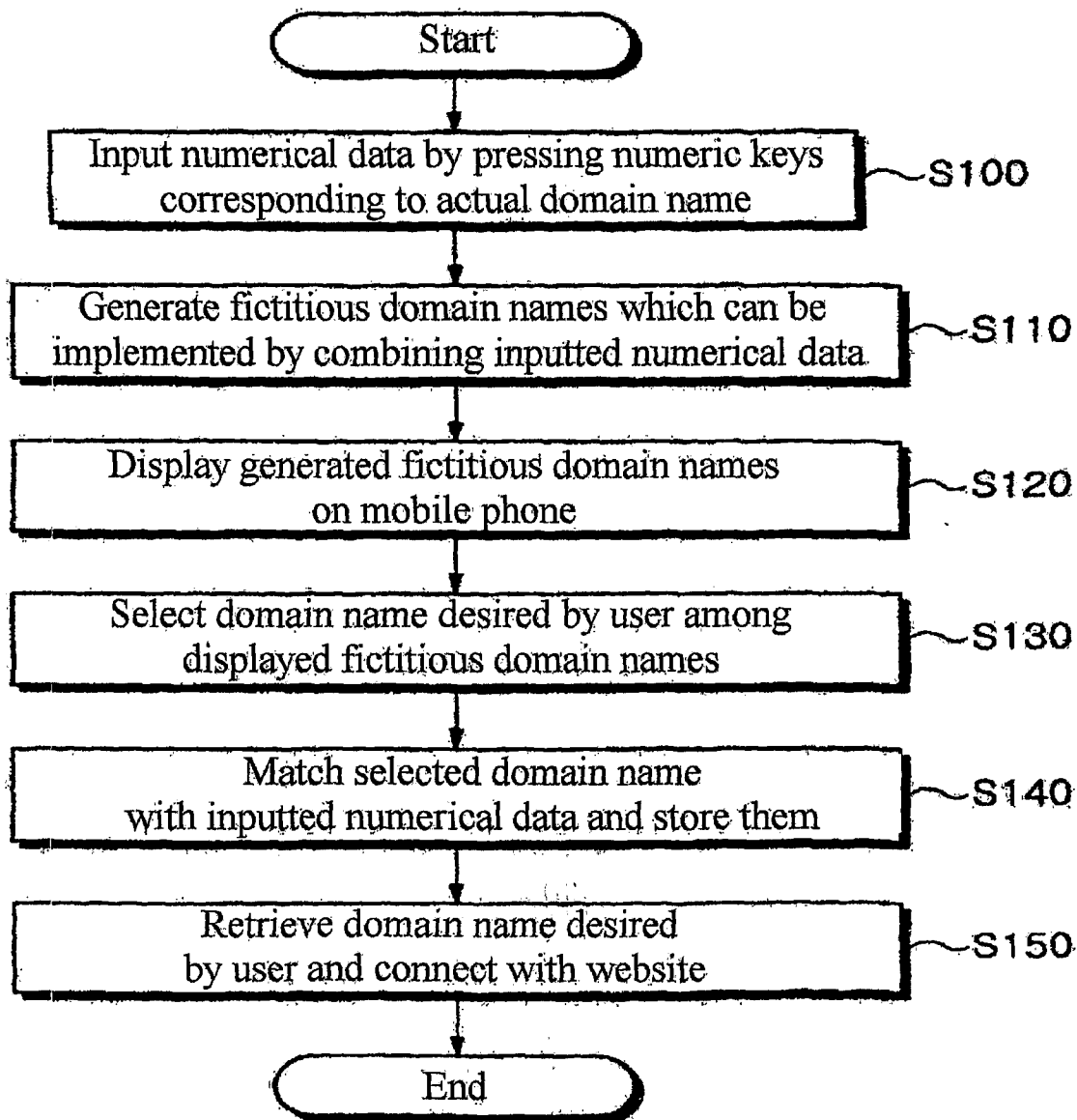


Fig. 3

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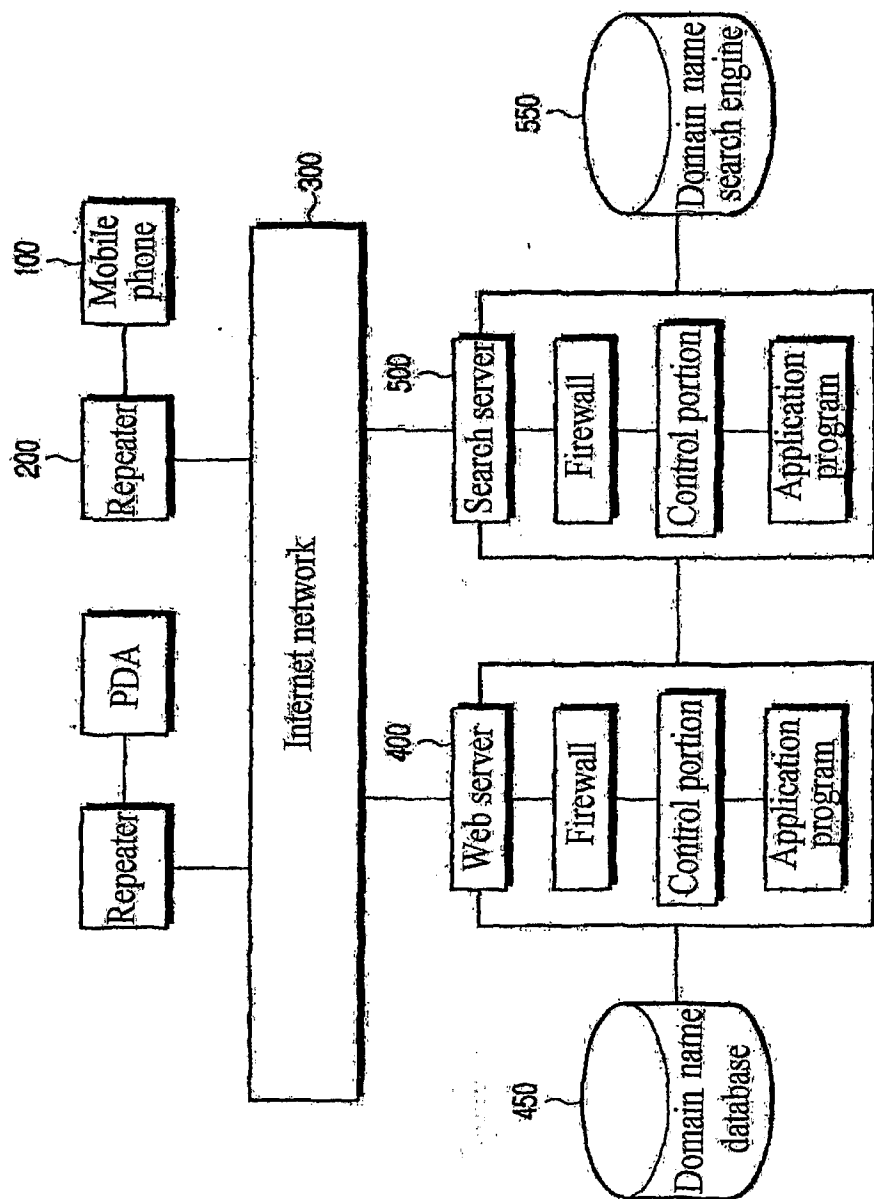


Fig. 4

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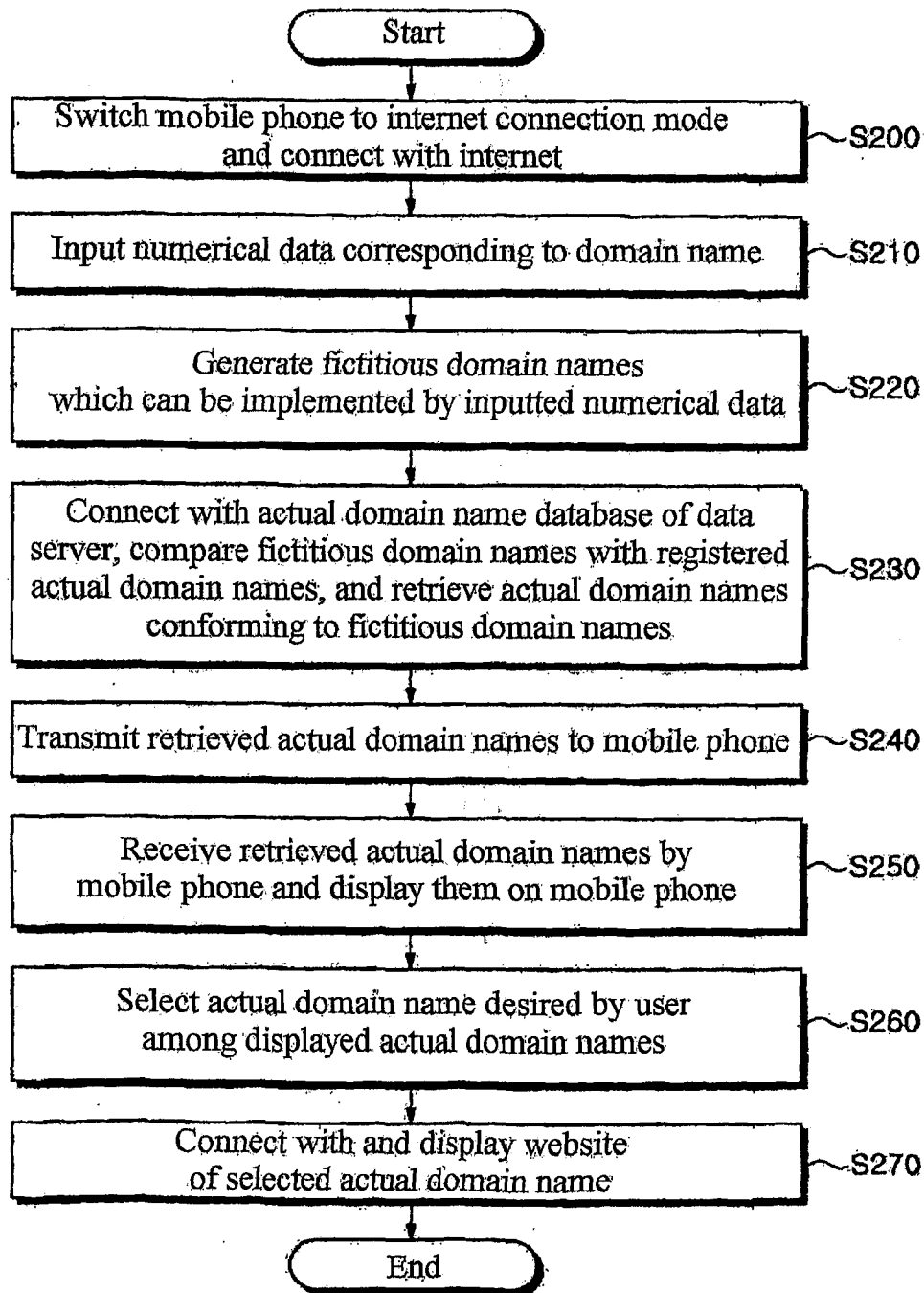


Fig. 5



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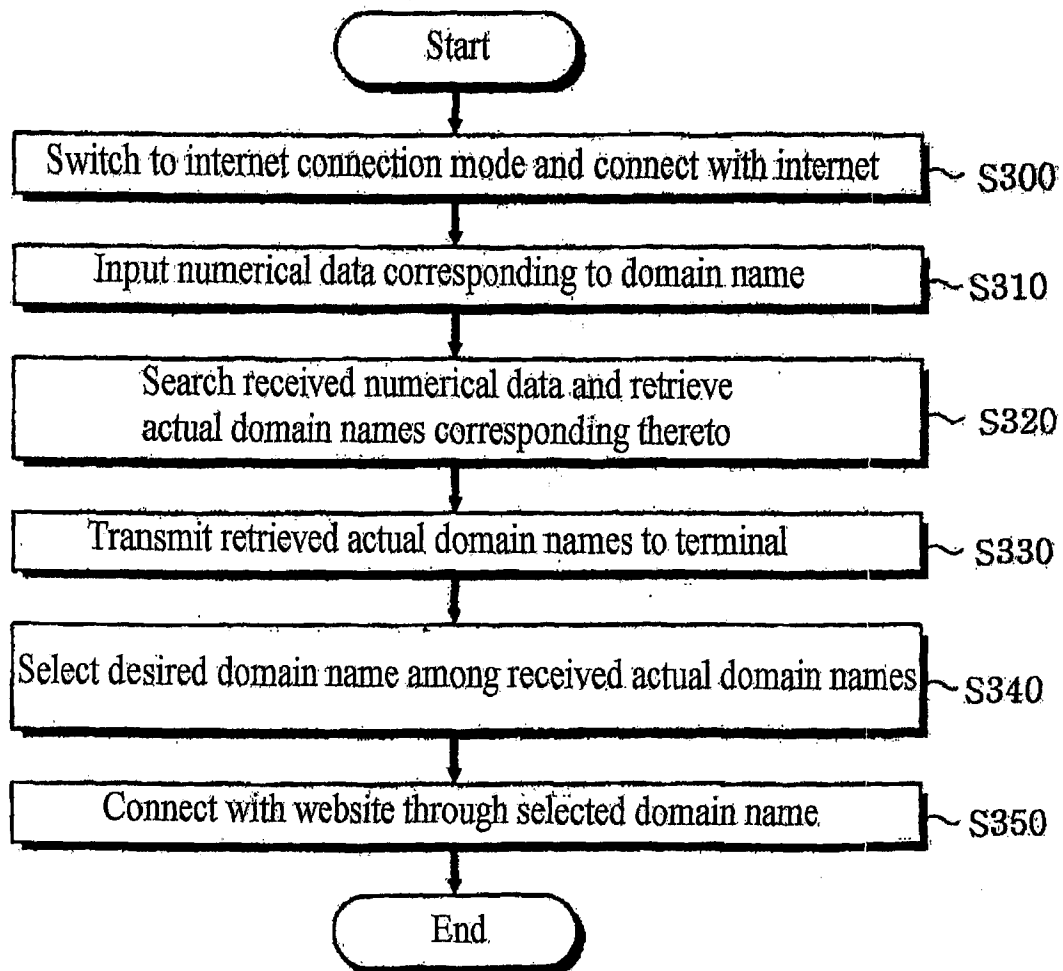


Fig. 6

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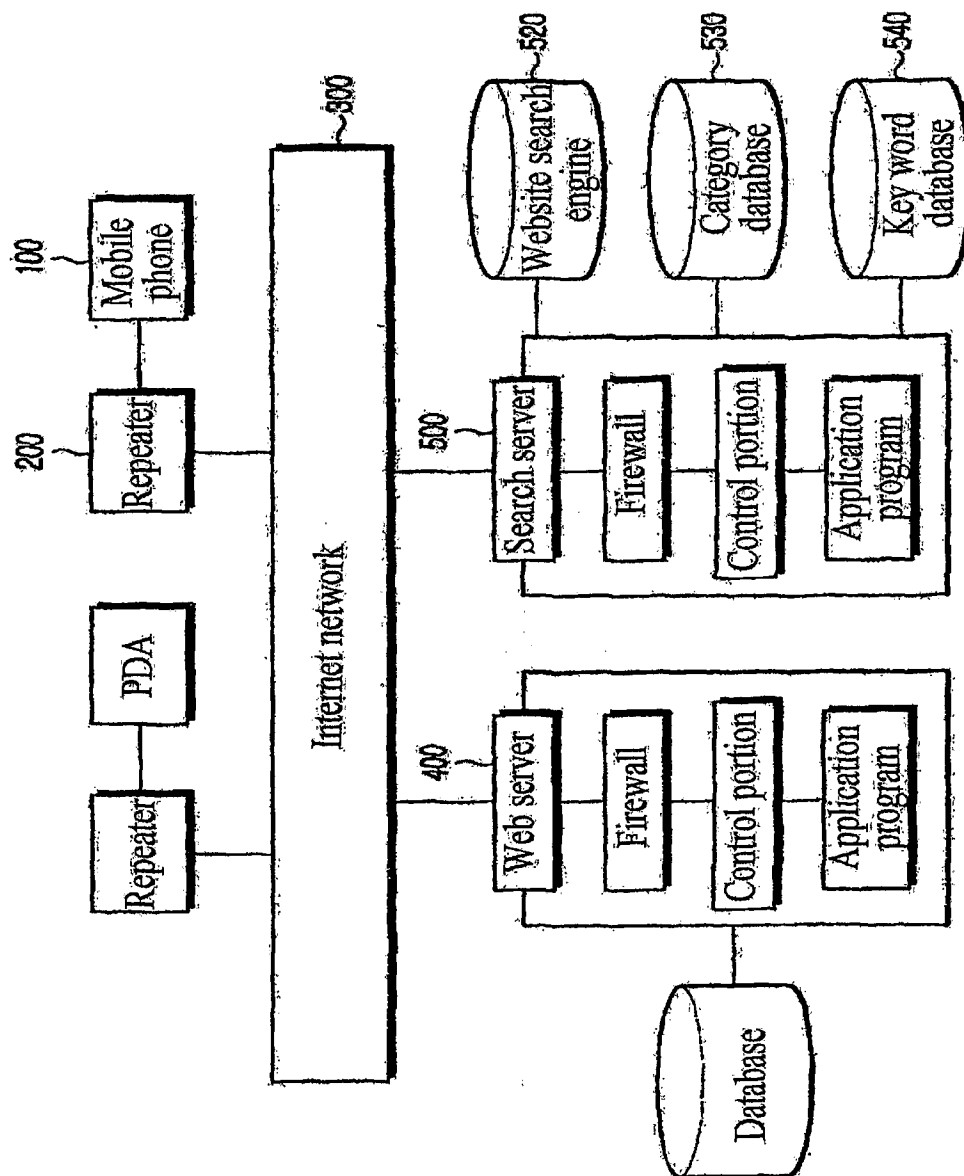


Fig. 7

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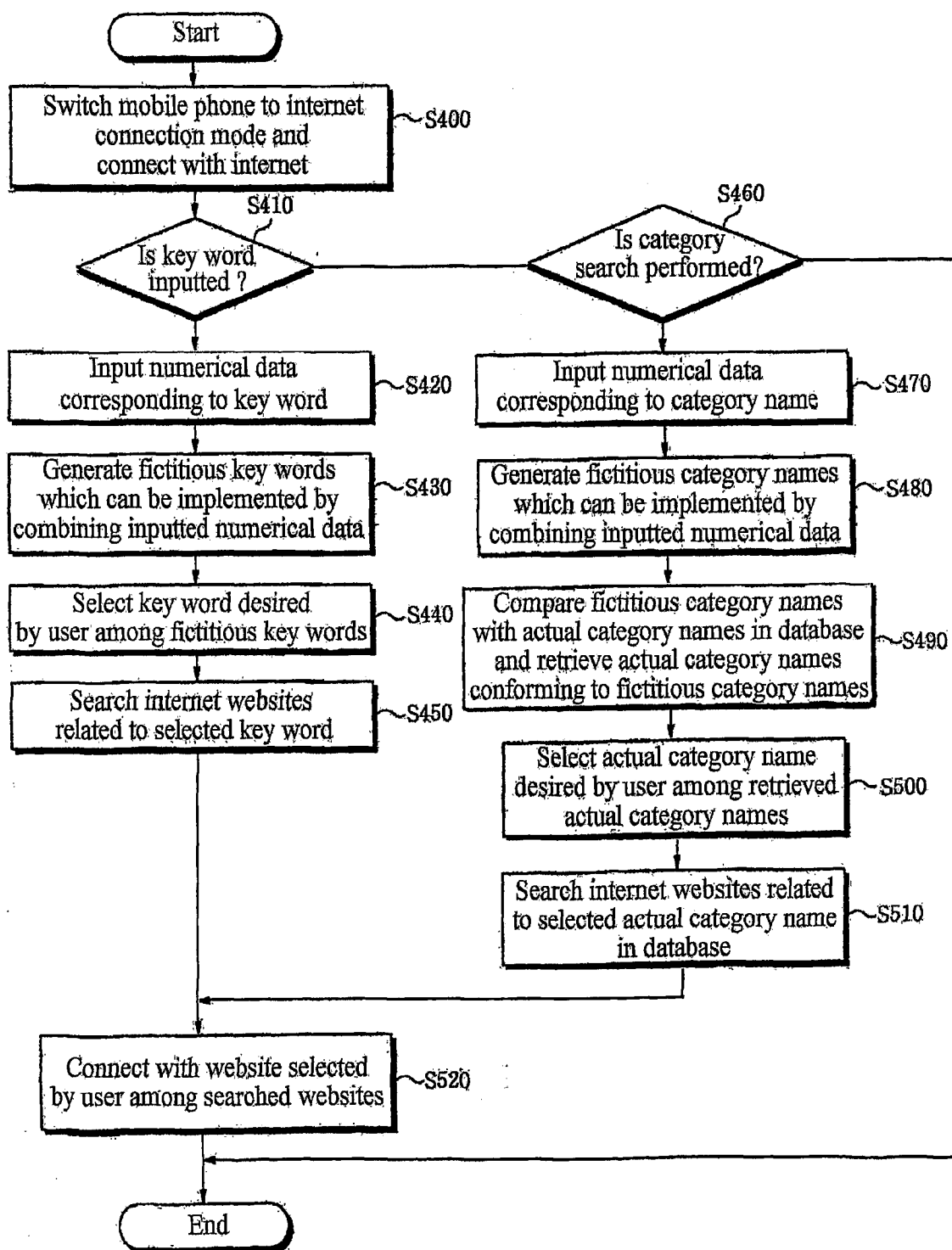


Fig. 8

## INTERNATIONAL SEARCH REPORT

international application No.  
PCT/KR01/01238

**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 H04B 1/38**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

G06F 15/16, 17/30, H04L12/28,12/58, H04M 3/44

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Patents and applications for inventions since 1975

Korean Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KR 00-30601 A (Kim Se Ki) 05 June 2000 (05.06.00) See the Whole Document	1 - 9
X	KR 99-84211 A (Kim Joon Han) 06 December 1999 (06.12.99) See the Whole Document	1 - 9
X	KR 00-17718 A (Lee Eun Kyung) 06 April 2000 (06.04.00) See the Whole Document	1 - 9
P,X	KR 01-36839 A (Click TV Corp.) 07 May 2001 (07.05.01) See the Whole Document	1 - 9
P,X	KR 01-36844 A (Wintoo Corp.) 07 May 2001 (07.05.01) See the Whole Document	1 - 9

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&amp;" document member of the same patent family

Date of the actual completion of the international search

08 NOVEMBER 2001 (08.11.2001)

Date of mailing of the international search report

13 NOVEMBER 2001 (13.11.2001)

Name and mailing address of the ISA/KR

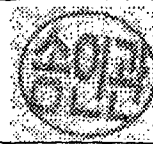
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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

PCT/KR01/01238

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
KR 00-30601 A	05.06.00	None	
KR 99-84211 A	06.12.99	None	
KR 00-17718 A	06.04.00	None	
KR 01-36839 A	07.05.01	None	
KR 01-36844 A	07.05.01	None	